

Serial No. 10/579,860

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Examiner: Joseph Moore Pelham**IN THE CLAIMS:**

1. (Currently Amended) A cooking appliance comprising:
 - a cooking chamber,
 - one or more heating elements,
 - a water supply which is fed from an external water supply source,
 - a water supply pipe having a water outlet coupled to the cooking chamber,
 - one or more intermediate water storage reservoirs having a predetermined interior volume that is adapted to be filled with water ~~and~~ provided in from the water supply,
 - the intermediate water storage reservoir or reservoirs being fed by the external water supply source,
 - a single multi-port distributing valve having an entrance port coupled to said water supply, an exit port coupled to said storage reservoir, ~~and~~ an exit port coupled to said water supply pipe, and operating for filling and emptying the intermediate water storage reservoir, the interior volume of the intermediate water storage reservoir or reservoirs being adapted to be controlled by said multi-port distributing valve to be intermittently blocked in regard to the filling and intermittently blocked in regard to the emptying, and
 - the water from the interior volume of the intermediate water storage reservoir or reservoirs being adapted to be emptied into the cooking chamber via the water outlet for the purposes of generating steam.
2. (Previously Presented) A cooking appliance in accordance with Claim 1,
wherein
there is provided a control or regulating device which initiates periodic or clocked emptying of the interior volume.

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3. (Previously Presented) A cooking appliance in accordance with Claim 1, wherein

the intermediate water storage reservoir comprises a swept cylinder whose interior volume is adapted to be emptied by a piston.

4. (Canceled)

5. (Previously Presented) A cooking appliance in accordance with Claim 2, wherein

the multi-port distributing valve is a 3/2-port distributing valve which is controlled electrically by the control and regulating device.

6. (Previously Presented) A cooking appliance in accordance with Claim 1, wherein

the emptying of the interior volume of the intermediate water storage reservoir is realized by a piston which periodically discharges the water in a swept cylinder.

7. (Previously Presented) A cooking appliance in accordance with Claim 6, wherein

the piston of the swept cylinder is equipped with a spring in order to push the water into the cooking chamber when the cylinder is opened at the cooking chamber side.

8. (Currently Amended) A cooking appliance in accordance with Claim 1, wherein

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the rate of flow for the generation of the steam is adapted to be varied by a control and regulating device by means of a change in timing of the ~~a~~ clock rate for the emptying mechanism of the interior volume of the control and regulating device.

9. (Currently Amended) A cooking appliance in accordance with Claim 1,
wherein

the intermediate water storage reservoir is connected by a hose-like water supply pipe to the cooking chamber and a pre-determined ~~lay~~ length of the hose converts the ~~a~~ periodically varying rate of flow into a continuous rate of flow.

10. (Currently Amended) A cooking appliance in accordance with Claim 1,
wherein

a sensor monitors the emptying, ~~and in particular~~, by the displacement of a piston.

11. (Previously Presented) A cooking appliance in accordance with Claim 1,
wherein

the water supply comprises at least two water supply pipes which run in parallel in sections thereof, and

each of the water supply pipes has one or more intermediate water storage reservoirs having a respective predetermined interior volume that is adapted to be filled with water.

12. (Currently Amended) A cooking appliance in accordance with Claim 11,
wherein

respective intermediate water storage reservoirs of the two water supply pipes are combined with one another in such a manner that they form a common intermediate water storage reservoir, whereby its interior accommodates the two interior volumes which are

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separated by ~~the a~~ piston that discharges the water in such a manner that the movement of the piston simultaneously leads to an emptying of the interior volume of the one intermediate water storage reservoir and to the filling of the other associated interior volume of the other intermediate water storage reservoir.

13. (Currently Amended) A cooking appliance in accordance with Claim 12, wherein

the intermediate water storage reservoir or reservoirs are adapted to be blocked by means of a plurality of two/two-port distributing valves in alternating manner in regard to the filling process and in regard to the emptying.

14. (Previously Presented) A cooking appliance comprising:

a cooking chamber;

at least one heating element in the cooking chamber;

a water supply which is fed from a water supply source;

a water outlet pipe that terminates at a water outlet that is disposed within said cooking chamber;

said water supply including at least two separate water supply pipes;

at least two intermediate water storage reservoirs each having respective interior volumes adapted to be filled with water from said respective water supply pipes;

at least two multi-port distributing valves associated respectively with the at least two intermediate water storage reservoirs for respectively controlling the filling and emptying of said intermediate water storage reservoirs;

the water from the respective interior volumes of the intermediate water storage reservoirs adapted to be emptied into the cooking chamber via the water outlet for the purpose of generating steam.

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15. (Previously Presented) The cooking appliance of claim 14 wherein said at least two intermediate water storage reservoirs are combined in a common container and are separated by a piston.

16. (Previously Presented) The cooking appliance of claim 15 including an electrical control device for controlling said valves for providing periodic emptying of the interior volumes.

17. (Previously Presented) The cooking appliance of claim 16 wherein each of the multi-port distributing valves is a 3/2-port distributing valve which is controlled by said electrical control device.

18. (Previously Presented) The cooking appliance of claim 14 wherein the two multi-port distributing valves have an exit port that is connected together and coupled to said water outlet.

19. (Previously Presented) The cooking appliance of claim 14 including four multi-port distributing valves arranged in pairs that are respectively associated with said at least two intermediate water storage reservoirs.

20. (Previously Presented) The cooking appliance of claim 19 wherein each of the multi-port distributing valves is a 2/2-port distributing valve, the intermediate water storage reservoirs being adapted to be blocked by means of said 2/2-port distributing valves in an alternating manner in regard to the filling and emptying of the intermediate water storage reservoirs.

21. (New) A cooking appliance comprising:
a cooking chamber;
at least one heating element in the cooking chamber;

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a water supply which is fed from a water supply source;

a water supply pipe having a water outlet coupled to the cooking chamber;

at least one intermediate water storage reservoir having a predetermined interior volume that is adapted to be filled with water provided from the water supply;

at least one distributing valves associated respectively with the at least one intermediate water storage reservoir for respectively controlling the filling and emptying of said intermediate water storage reservoir;

said at least one distributing valve having an entrance port coupled to said water supply, an exit port coupled to said storage reservoir and an exit port coupled to said water supply pipe, the interior volume of the intermediate water storage reservoir being adapted to be controlled by said at least one distributing valve;

said at least one distributing valve operating for successively filling and emptying the intermediate water storage reservoir so as to advance the predetermined interior volume of water;

the water from the interior volume of the intermediate water storage reservoir adapted to be emptied into the cooking chamber via the water outlet for the purpose of generating steam.

22. (New) The cooking appliance of claim 21 including an electrical control device for controlling the distributing valve so as to initiate clocked emptying of the interior volume.

23. (New) The cooking appliance of claim 22 wherein the control device is controlled to effect the clock rate of the device to, in turn, control the overall volume of water coupled to the cooking chamber.

24. (New) The cooking appliance of claim 21 wherein the intermediate water storage reservoir comprises a swept cylinder whose interior volume is adapted to be emptied by a piston.

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25. (New) The cooking appliance of claim 24 including a sensor for detecting displacement of the piston.

26. (New) The cooking appliance of claim 21 wherein the rate of flow for the generation of the steam is adapted to be varied by a control and regulating device by means of a change in timing of a clock rate of the control and regulating device.

27. (New) The cooking appliance of claim 21 wherein the interior volume of the intermediate water storage reservoir is adapted to be controlled by said distributing valve to be intermittently blocked in regard to the filling and intermittently blocked in regard to the emptying.

28. (New) The cooking appliance of claim 21 wherein the water supply comprises at least two water supply pipes which run next to each other in sections thereof, and each of the water supply pipes has one or more intermediate water storage reservoirs having a respective predetermined interior volume that is adapted to be filled with water.

29. (New) The cooking appliance of claim 28 wherein respective intermediate water storage reservoirs of the two water supply pipes are combined with one another in such a manner that they form a common intermediate water storage reservoir, whereby its interior accommodates the two interior volumes which are separated by a piston that discharges the water in such a manner that the movement of the piston simultaneously leads to an emptying of the interior volume of the one intermediate water storage reservoir and to the filling of the other interior volume of the other intermediate water storage reservoir.

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30. (New) The cooking appliance of claim 29 wherein the intermediate water storage reservoir or reservoirs are adapted to be blocked by means of a plurality of two/two-port distributing valves in alternating manner in regard to the filling and in regard to the emptying.

31. (New) A method of controlling the generation of steam at the water outlet in the cooking chamber of a cooking appliance comprising:

providing at least one intermediate water storage reservoir having a predetermined interior volume that is adapted to be filled with water provided from a water supply;

controlling the water from the water supply by means of at least one distributing valve associated respectively with the at least one intermediate water storage reservoir for respectively controlling the filling and emptying of said water storage reservoir;

in a first state of the distributing valve, opening the distributing valve so as to fill the interior volume of the water storage reservoir from the water supply;

in a second state of the distributing valve, subsequently opening the distributing valve emptying the interior volume of water from the water storage reservoir via a water outlet to the cooking chamber;

whereby the water from the interior volume of the intermediate water storage reservoir is emptied into the cooking chamber via the water outlet for the purpose of generating steam.

32. (New) The method of claim 31 including operating the distributing valve for filling and emptying the intermediate water storage reservoir, the interior volume of the intermediate water storage reservoir being adapted to be controlled by said distributing valve to be intermittently blocked in regard to the filling and intermittently blocked in regard to the emptying,

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33. (New) The method of claim 31 wherein the emptying of the interior volume of the intermediate water storage reservoir is realized by a piston which periodically discharges the water in a swept cylinder.

34. (New) The method of claim 1 wherein the rate of flow for the generation of the steam is adapted to be varied by a control and regulating device by means of a change in timing of a clock rate of the control and regulating device.